The output 24_1 provides the amplitude R of the instantaneous input signal and the output 24_2 provides the phase φ of the instantaneous input signal.

IN THE CLAIMS:

Please amend the claims to read as follows:

1.   (Amended)A method for the linearisation of a wide frequency band power amplifier, said method comprising the steps of:

dividing the frequency band of operation of the amplifier into at least two groups or subbands,

measuring the instantaneous frequency of each sampled input signal in order to determine the group or subband to which it belongs, and

applying predistortions to the input signal, said predistortions having values depending on the frequency group.

2.   A method according to claim 1, wherein the frequency dependent predistortions are provided by a set of look-up tables, the number of look-up tables being equal to the number of frequency subbands, a look-up table containing, for each amplitude of the input signal, two correction values representing the amplitude and the phase of a predistortion.

3.   (Amended)A method according to claim 1, wherein said predistortion values are calculated by using coefficients of a polynom of which the variable is the amplitude of the input signal.

4.   (Amended)A method according to claim 1, wherein the instantaneous frequency of the sampled input signal is calculated by the derivative of the phase of the sampled input signal.

5.   A method according to claim 4, wherein the instantaneous frequency of the sampled input signal is calculated by the subtraction of the phases of two successive samples.

6.   (Amended)A method according to claim 1, wherein the input sampled signals are represented by their rectangular coordinates in a complex plane and wherein the rectangular coordinates are converted into polar coordinates, the phase being used to determine the frequency group and the amplitude being used to determine the predistortion values in the frequency group.

7.   A method according to claim 1, wherein the accuracy of measurement of the instantaneous frequency is lower than the accuracy of the input signal.

8.   A method according to claim 1, wherein the predistortion values or coefficients are periodically updated by measuring the effect of input test or regular signals on the output signal of the amplifier and by calculating the predistortion values or coefficients based on this measurement.

9.   (Amended)The method according to claim 1, wherein said method is used to linearize the power amplifier of a transmitter.

10.   A transmitter including a power amplifier linearised by means of a method according to claim 1, wherein said transmitter transmits CDMA signals.

11.   A transmitter including a power amplifier linearised by means of a method according to claim 1, wherein said transmitter comprises a coherent receiver which is used for the updating of predistortion values or coefficients.

12.   (Amended)The method according to claim 8, wherein said method is applied to a station comprising a transmitter with a power amplifier to be linearised and a receiver, wherein the receiver is used for measuring the output of the power amplifier for updating predistortion values or coefficients.

IN THE ABSTRACT:

    Please delete the present Abstract of the Disclosure and replace it with the following new Abstract of the Disclosure.